providing information about product accessibility features to persons with disabilities. Such an approach would maximize the ability of persons with disabilities to purchase products that accommodate their unique functional limitations. The FCC's proposed definition, which is modeled on the idea of "universal accessibility," sets a bar that is impossible for manufacturers to meet. While the FCC's proposed definition does not preclude manufacturers from providing information about product features that enhance accessibility, by setting an impossible standard, it leaves manufacturers reluctant, rather than eager, to promote their accomplishments in providing increased access. A definition of "accessible" that is consistent with the realities of what can be accomplished within the "readily achievable" standard will encourage manufacturers to provide information about access features to consumers.

1. TIA has proposed an alternative definition of "accessible."

In its comments, TIA has proposed a definition of "accessible." TIA's proposed definition would provide as follows:

> **"Accessible:"** Telecommunications equipment and CPE is "accessible" to the extent that it enhances the ability of a person with a disability to use the telecommunications equipment or CPE by incorporating one or more of the following features or functionalities, to the extent readily achievable:
>
> **Input, control, and mechanical functions.** Input, control, and mechanical functions shall be locatable, identifiable, and operable in accordance with each of the following, assessed independently:
>
> (a) OPERABLE WITHOUT VISION. Provide at least one mode that does not require user vision.
>
> (b) OPERABLE WITH LOW VISION AND LIMITED OR NO HEARING. Provide at least one mode that permits operation by users with visual acuity between 20/70 and 20/200, without relying on audio output.

(c) OPERABLE WITH LITTLE OR NO COLOR PERCEPTION. Provide at least one mode that does not require user color perception.

(d) OPERABLE WITHOUT HEARING. Provide at least one mode that does not require user auditory perception.

(e) OPERABLE WITH LIMITED MANUAL DEXTERITY. Provide at least one mode that does not require user fine motor control or simultaneous actions.

(f) OPERABLE WITH LIMITED REACH AND STRENGTH. Provide at least one mode that is operable with user limited reach and strength.

(g) OPERABLE WITHOUT TIME-DEPENDENT CONTROLS. Provide at least one mode that does not require a response time. Alternatively, a response time may be required if it can be by-passed or adjusted by the user over a wide range.

(h) OPERABLE WITHOUT SPEECH. Provide at least one mode that does not require user speech.

(i) OPERABLE WITH LIMITED COGNITIVE SKILLS. Provide at least one mode that minimizes the cognitive, memory, language, and learning skills required of the user.

Output, display, and control functions. All information necessary to operate and use the product, including but not limited to, text, static or dynamic images, icons, labels, sounds, or incidental operating cues, shall comply with each of the following, assessed independently:

(a) AVAILABILITY OF VISUAL INFORMATION. Provide visual information through at least one mode in auditory form.

(b) AVAILABILITY OF VISUAL INFORMATION FOR LOW VISION USERS. Provide visual information through at least one mode to users with visual acuity between 20/70 and 20/200 without relying on audio.

(c) ACCESS TO MOVING TEXT. Provide moving text in at least one static presentation mode at the option of the user.

(d) AVAILABILITY OF AUDITORY INFORMATION. Provide auditory information through at least one mode in visual form and, where appropriate, in tactile form.

(e) AVAILABILITY OF AUDITORY INFORMATION FOR PEOPLE WHO ARE HARD OF HEARING. Provide audio or acoustic information, including any auditory feedback tones that are important for the use of the product, through at least one mode in enhanced auditory fashion (i.e., increased amplification,

increased signal-to-noise ratio, or combination). For transmitted voice signals, provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, provide at least one intermediate step of 12 dB of gain.

(f) PREVENTION OF VISUALLY-INDUCED SEIZURES. Visual displays and indicators shall minimize visual flicker that might induce seizures in people with photosensitive epilepsy.

(g) AVAILABILITY OF AUDIO CUTOFF. Where a product delivers audio output through an external speaker, provide an industry standard connector for headphones or personal listening devices (e.g. phone-like handset or earcup) which cuts off the speaker(s) when used.

(h) NON-INTERFERENCE WITH HEARING TECHNOLOGIES. Reduce interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) to the lowest possible level that allows a user to utilize the product.

(i) HEARING AID COUPLING. Where a product delivers output by an audio transducer which is normally held up to the ear, provide a means for effective wireless coupling to hearing aids.

Furthermore, the evaluation of a product's accessibility shall take into account accessibility of information, documentation and training, as well as information pass through, as set forth in the Access Board's Guidelines, §§ 1193.33 and 1193.37

Under TIA's proposed definition, "accessible" equipment and CPE are defined in terms of features that enhance accessibility according to the criteria developed by the Access Board, instead of using those criteria to define "accessibility" itself.[49] In this way, TIA's proposed definition serves to identify those product features that enhance the accessibility of products for persons with disabilities.

Furthermore, Motorola endorses TIA's proposal because it is consistent with both the limitations of the "readily achievable" standard and the reality that every product cannot be

[49] NPRM ¶¶ 74-75; Access Board Guidelines §§ 1193.4 1, 1193.43.

accessible to everyone. Under TIA's definition, each item on the Access Board's checklist would not be mandatory. Rather, a manufacturer would be required to do what was "readily achievable," a determination based upon, among other "readily achievable" criteria (such as technical feasibility and fundamental alteration), the cumulative cost of accessibility features (defined by the Access Board's guidelines) included in a product."' This approach is also more consistent with a policy of promoting product differentiation so as to provide truly meaningful access for different disabilities, rather than a very superficial level of access in virtually every product.

2. Motorola endorses the alternative definition of "accessible" proposed by TIA because it creates a workable framework that generates incentives for manufacturers to provide useful information about accessibility features to consumers, and recognizes that such features will be incorporated, to the extent "readily achievable," across product lines and families, and provides useful product information for consumers.

Most importantly, TIA's proposal, unlike the FCC's, encourages manufacturers to provide consumers with specific, technical information about the accessibility features included in products. Manufacturers cannot represent that their products are "accessible" as the FCC proposes to define that term, because no product can accommodate all of the functional limitations identified in the 18 point definition of "accessible." While a manufacturer could certainly qualify such a representation by stating that a product has been made accessible to the extent "readily achievable," this kind of representation is absolutely useless to a consumer with a

[50] In so doing, TIA's definition of "accessible" would apply the "readily achievable" standard in the same way as that term has been applied and defined in the ADA context. See DOJ Preamble, 28 C.F.R. Part 36, App. B (commenting on § 36.104) (indicating that it is "appropriate to consider the cost of other barrier removal actions as one factor in determining whether a measure is readily achievable.").

functional limitation, because such a statement provides no information about what a product does and whether it will in fact be accessible to that consumer. Similarly, the uniqueness of every individual's disability, and the range of functional limitation even within a single disability, will inhibit manufacturers from representing that a product is "accessible" to a particular type or set of functional limitation.

In contrast, under TIA's proposal, manufacturers' success in providing access is measured in terms of the features provided, which will encourage manufacturers to make representations about specific features that enhance accessibility included in a given product, information that a consumer with a disability needs in order to determine whether a given product will be accessible to him or her. A manufacturer can provide, for example, information concerning how many decibels of gain a product can produce, the font size, typeface and color used on a display, the size of buttons on a keypad, or whether the product has a voice chip or a vibrating feature. These are features that enhance the accessibility of products that can be described in specific technical terms that are useful to persons with disabilities, who most often are well informed about the performance criteria that a product must meet in order to be accessible to their unique functional limitations.

By ensuring that persons with disabilities and other consumers have the information to determine whether a product is accessible to them, TIA's proposed definition of "accessible" would reduce the amount of manufacturer resources that are diverted to demonstrating compliance, and at the same time, encourage increased accessibility.

B. The Definition Of Compatibility Should Be Modified So That It Not Only Accounts For, But Encourages, Advances In Technology That Will Ultimately Increase Access For Persons With Disabilities.

Where accessibility is not "readily achievable," manufacturers have an obligation under Section 255 to ensure that their telecommunications equipment and CPE are "compatible with existing peripheral devices or specialized customer premises equipment commonly used by persons with disabilities . . if readily achievable." In the NPRM, the FCC "recognize[s] that . . . compatibility criteria need to be broadened to account for likely technological advances in both telecommunications and accessibility products."[51] Motorola agrees.

The FCC proposes to adopt the same definition of "compatibility" developed by the Access Board in its guidelines.[52] That definition relies upon a five item "checklist" to define compatibility. Two of the five elements of the FCC's proposed compatibility checklist relate to TTY compatibility." To date, this compatibility has proven extremely difficult for digital wireless technology.[54] Therefore, for many digital products TTY compatibility will not be "readily achievable" because it is not technically feasible.

As the FCC has recognized in other proceedings, digital wireless technologies are the wave of the future and will benefit all of the public, including persons with disabilities.

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[51] NPRM ¶ 92.

[52] See 36 C.F.R. § 1193.51.

[53] NPRM ¶ 91.

[54] Invented in the 1960s (using much older technology as a platform), TTY machines encounter numerous compatibility problems with modern computer and information technology. TTYs have not changed significantly since they were first designed. The modulation speed for example, of most TTYs is simply too slow to be effectively handled by today's high-speed computer modems.

Digital technology has made two-way paging and mobile email access possible – features that are extremely useful, for example, to persons who are deaf or hard of hearing. Digital technology also made the new NBPCS voice paging possible – a communication approach which is very useful for someone who is blind. Digital technology greatly increases the capacity of telephone systems to serve more users with more functions. If Section 255 had been in effect when digital technology was first being developed, a requirement that any telecommunications equipment using this infrastructure be TTY compatible might have significantly impeded development of this technology which has benefited everyone. In balancing the public interest objectives of encouraging technological innovation and increased usability by all members of the public body, the FCC should ensure that Section 255's compatibility requirement is not applied in a way that impedes the introduction of new innovations in technology.

The FCC's recent activity related to digital television broadcasting provides a useful example of how compatibility criteria should be applied to new and developing technologies.[55] The FCC, to promote digital television broadcasting, has established a phase-in timetable for use of this technology.[56] In a thoroughly vetted public process, the FCC established a phase-in timetable for use of this technology to promote digital television broadcasting. Ultimately, the FCC's decision will require virtually every household in America to purchase a new television set, because existing sets will be incompatible with the new digital technology.

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[55] See 63 Fed. Reg. 15774 (1998) (to be codified at 47 C.F.R. pt. 73) (setting target date of 2006 for completion of the transition to digital television).

[56] Id.

For the same reason, the FCC should not encourage perpetuation of outdated TTY technology by requiring compatibility indefinitely. Rather, the FCC should consider phasing out the compatibility obligation for such outdated technologies, and should encourage the development of modern replacement technology. This is a sensitive and difficult issue. Much careful thought needs to be given to any phase out and phase in of comparable technologies. The key point here is that the FCC does no service in the long run to persons with hearing or speech disabilities who rely on TTYs today by perpetuating its use.

The FCC should modify the "commonly used" criterion[57] so that manufacturers may be relieved of the obligation to provide compatibility with one kind of SCPE (e.g., TTY) that is not consistent with a new telecommunications technology (e.g. digital wireless), where another kind of telecommunications equipment, CPE or SCPE that is consistent with the new telecommunications technology can be designed to provide the same telecommunications functions. In order to promote the technologies that will ultimately increase access, the FCC should not simply look at which kinds of SCPE are subsidized by state and local governments today," but should create incentives, through its compatibility criteria, for the use and development of SCPE that is consistent with new telecommunications technologies.[59]

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[57] See NPRM ¶ 90 (requesting comment on when SCPE should be considered "commonly used," triggering the Section 255 compatibility obligation).

[58] See id. (suggesting such a criterion for "commonly used").

[59] Motorola supports the concept of a definitive list of "commonly used" SCPE and peripherals developed and periodically updated by the FCC so that manufacturers' compatibility obligation is clearly defined.

Finally, Motorola asks the FCC to clarify several aspects of the compatibility requirement. First, if the FCC were to adopt the product line approach for accessibility as advocated by Motorola, the compatibility requirement would not come into play at all, so long as a manufacturer can demonstrate it has an accessible product in its product line that serves the particular individual's functional limitation. This is clearly supported by the language of Section 255, which requires compatibility only when accessibility is not readily achievable.[60] Second, Motorola asks the FCC to clarify that a product line approach also is applicable to all five elements of the compatibility requirement. That would mean that manufacturers of telecommunications equipment and CPE would be required to consider incorporating the five elements across product lines, rather than a product by product basis. Motorola believes the compelling reasons for adopting a product line approach with respect to accessibility apply with equal force to the compatibility requirement.[61]

V. THE FCC SHOULD ADOPT A FAIR AND EFFICIENT COMPLAINT PROCESS THAT FOCUSES ON THE ACCESS NEEDS OF SPECIFIC INDIVIDUALS AND PROTECTS THE CONFIDENTIALITY OF PROPRIETARY INFORMATION SUBMITTED IN THE COMPLAINT PROCESS.

A. Motorola Endorses TIA's Comments Related To The Complaint Process.

In response to this NPRM, TIA has submitted extensive comments related to the complaint process proposed by the FCC. Rather than reiterate TIA's comments here, Motorola indicates its strong support for TIA's comments, particularly its criticisms of the fast-track complaint process, which would permit consumers to file "complaints" with the FCC without

[60] 47 U.S.C. § 255(d).

[61] See Section II, supra.

first being required to contact the manufacturer of the allegedly inaccessible product. On two issues of special importance, however, Motorola submits its own comments in addition to those of TIA: (1) the need for a standing requirement; and (2) the need for measures to insure the confidentiality of proprietary information submitted in the complaint process.

B. A Standing Requirement For Filing A Complaint Is Essential.

First, and most importantly, Motorola urges the FCC to adopt a standing requirement for filing a complaint.[62] Congress did not, in the Telecommunications Act of 1996, indicate that a standing requirement was unnecessary. Case law suggests that while Congress has the authority to dispense with a standing requirement in the context of administrative agencies, in the absence of a clear directive from Congress, agencies are constrained from doing so by the Administrative Procedure Act ("APA").[63] Absent a more broad grant of standing by Congress, the persons who are permitted to tile complaints before administrative agencies should be limited to "interested parties."

Standing should be limited to "interested parties." To determine whether a complainant is an "interested party" entitled to standing, an agency should consider the following factors: (1) the nature of the interest asserted by the potential participant; (2) the relevance of this interest to the goals and purposes of the agency; (3) the qualifications of the potential

[62] See NPRM ¶ 148.

[63] See Ecee, Inc. v. Federal Energy Regulator-v Commission, 645 F.2d 339, 350 (5th Cir. 198 1) (holding that § 555(b) of the APA, which states that an "interested person" may appear before an agency in connection with an agency function, applied to limit standing before FERC). But see Block v. Securities and Exchange Commission, 50 F.3d 1078, 1085 (D.C. Cir. 1995) (on issue of whether an "interested person" could compel discretionary agency action, holding § 555(b) only applies to intervention in ongoing proceedings).

participant to represent this interest; (4) whether other persons could be expected to represent adequately this interest; and (5) whether special considerations indicate that an award of standing would not be in the public interest.[64]

Consideration of these factors in the Section 255 context suggests that standing should be limited to "interested parties," defined to mean: (1) a person with a disability, or someone filing a complaint on behalf of a specific, identifiable individual with a disability (such as an organization that represents persons with disabilities,[65] or a parent or legal guardian); and (2) who has purchased or used or has attempted to purchase or use a specific, identifiable piece of telecommunications equipment or CPE.

Such a standing requirement would ensure that: (1) the nature of the interest asserted by the complainant would be increased accessibility, rather than competitive or economic interests; (2) the complainant's interest would be relevant to the goals and purposes of Section 255; and (3) the complainant, as a person asserting specific, identifiable access needs would be qualified to represent this interest, because access issues cannot be resolved in the abstract. [66]

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[64] See Koniag Inc. v. Andrus, 580 F.2d 601, 616 (D. C. Cir. 1978) (Bazelon, J. concurring).

[65] Where an organization files a complaint, it should be required to identify specific members who access needs allegedly are not met by specific products, in accordance with the ordinary rules governing organizational standing. E.g., Sierra Club v. Morton, 405 U.S. 727, 735 (1972) (holding that alleged injury to ideological interests of organization are not sufficient to confer standing; organization must allege injury to specific members of organization who would have standing to sue on their own behalf).

[66] See Koniag, Inc., 580 F.2d at 616.

A standing requirement is particularly necessary in the context of Section 255 because the functional limitations of persons with disabilities, even within a single disability, are highly individual and unique. As a result, it is simply too difficult and vague for manufacturers to consider the "accessibility" of equipment or CPE in the abstract. Rather, the FCC can only provide meaningful review of accessibility when confronted with a person with specific functional limitations and accessibility needs who wants to use a particular product.

The lack of a standing requirement also opens up manufacturers and service providers to a wide variety of complaints, some frivolous, and some that do not aim to achieve greater accessibility. These complaints will necessarily divert attention and resources from bona fide complaints from consumers. Motorola is particularly concerned that entities may use the complaint process to obtain proprietary and confidential information from manufacturers and service providers.

Motorola therefore urges the FCC to adopt a baseline standing requirement that the complainant must be: (1) a person with a disability, or someone tiling a complaint on behalf of a specific, identifiable individual with a disability (such as a parent or legal guardian or representative organization that meets the legal standing requirements); and (2) who has purchased or used or has attempted to purchase or use a specific, identifiable piece of telecommunications equipment or CPE.

C. In Fairness, The FCC Must Recognize And Accommodate Manufacturers' Legitimate Concerns About The Confidentiality Of Information Disclosed In The Complaint Process.

Manufacturers and service providers have great concerns about confidentiality of information provided as part of the complaint process, as noted by the FCC in the NPRM.[67] In order to defend complaints, especially complaints in which the "readily achievable" defense has been invoked, manufacturers and service providers may have to provide proprietary and confidential information concerning their decisions whether to incorporate particular features into particular products or services. As Motorola's discussion of hypothetical "product drivers" and budgets[68] demonstrates, much of the information relevant to such a defense – such as product memory and cost information – is likely to be highly confidential for competitive reasons. Particularly in light of the lack of a standing requirement in the FCC's proposal, manufacturers and service providers may be required to provide this information to a wide variety of entities, including potential competitors.

The FCC requested comment on ways to protect the confidentiality of information provided during the complaint process, referencing confidentiality protections provided in its regulations in connection with FOIA requests and discovery. See 47 C.F.R. §§ 0.457(d), 0.457(g) and 1.73 1. Section 1.73 1 limits disclosure of information obtained through discovery, that is designated proprietary, to particular persons for use only in the complaint proceedings, and only to the extent necessary to assist in prosecution or defense of such complaint,

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[67] See NPRM ¶ 153.

[68] See discussion of "readily achievable" standards, Section III infra.

However, § 1.73 1 places the burden of proof on the party designating documents as proprietary to prove they are such if challenged. Motorola believes that disputes over the proprietary nature of information submitted as part of the complaint process will divert resources from the goals of Section 255. Motorola therefore requests that where the "readily achievable" defense has been invoked, all information submitted by the manufacturer should be treated as proprietary without a requirement that the manufacturer designate it as such. This treatment of all information as proprietary will in no way limit complainants' ability to prosecute their claims; on the other hand, it will provide significant protection for manufacturers and service providers.

In addition, Motorola believes that the FCC should adopt strict penalties for improper disclosure of confidential information disclosed in the complaint process, Such penalties might include:

- imposition of fines;
- dismissal of the complaint; and
- precluding the complainant from filing complaints in the future.

VI. CONCLUSION

For the reasons stated above, the FCC should: (1) adopt a product-line approach to compliance that encourages product differentiation to provide access to persons with disabilities; (2) define what is "readily achievable" in the telecommunications manufacturing context in terms of technical feasibility, cumulative cost, and fundamental alteration; (3) modify its proposed definitions of key statutory terms such as "accessible" (by adopting TIA's proposed definition) and "compatible" (by creating incentives for the development of new access technologies) to promote increased access in the long-run and to minimize the need for filing

complaints; and (4) adopt a fair and efficient complaint process that: (a) includes a standing requirement in order to focus on the specific access needs of a particular individual and particular allegedly inaccessible product(s); and (b) protects manufacturers against disclosure of confidential and proprietary information.

Respectfully Submitted,

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Its Attorneys

Dated: June 30, 1998

CERTIFICATE OF SERVICE

I, Karen E. Lloyd, do hereby certify that on this 30th day of June 1998, a copy of the foregoing Comments of Motorola, Inc. has been served, via hand delivery, upon the following:

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A

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THE PORTABLE ANSWERING MACHINE

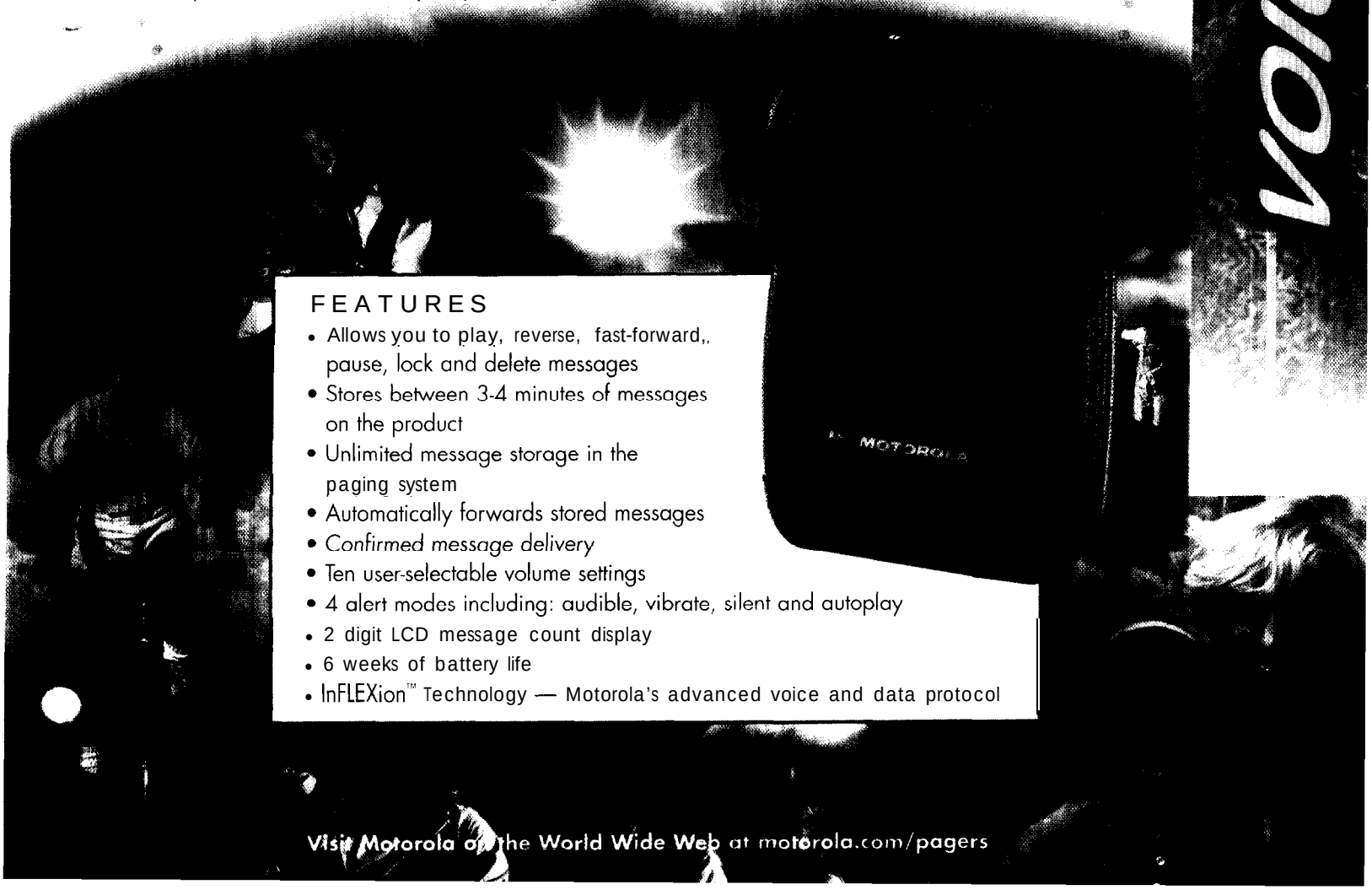
"Motorola's Portable Answering Machine
Fits Neatly in Your Pocket."

AN ANSWERING MACHINE IN YOUR POCKET?

Why Not?

Motorola's Portable Answering Machine is a revolutionary new product that receives and stores voice messages in the caller's actual voice. This simple product allows you to hear the voice &your friends, family members and business associates at the touch of a button. The person leaving you the message simply dials your personal number and speaks into the phone. The message is sent directly to this product...just like using a traditional answering machine, but it is portable! It can be worn on a belt or carried in a pocket or purse. Based on consumer feedback, another interesting way to use this product is to call forward your home or business phone to your portable answering machine. Now all of your messages are sent to one convenient location and it is all transparent to the person calling you. The caller will hear your personal greeting and then simply leave the message...it is that simple!

voice ON THE GO!



FEATURES

- Allows you to play, reverse, fast-forward,, pause, lock and delete messages
- Stores between 3-4 minutes of messages on the product
- Unlimited message storage in the paging system
- Automatically forwards stored messages
- *Confirmed message delivery*
- Ten user-selectable volume settings
- 4 alert modes including: audible, vibrate, silent and autoplay
- 2 digit LCD message count display
- 6 weeks of battery life
- InFLEXion™ Technology — Motorola's advanced voice and data protocol

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PORTABLE ANSWERING MACHINE SPECIFICATIONS

Code Format:	InFLEXion™
Power Supply:	9V alkaline battery
Battery Life (3 pages/day):	1000 hours typical

Frequency Bands:	929-932 MHz, 935-941 MHz
Channel Spacing:	50 kHz
Number of Subchannels:	3 for control, 7 for voice
Subchannel Spacing:	25 kHz for control, 6.25 kHz for voice
Frequency Stability:	0.03 ppm with AFC
Gaussian Sensitivity (voice):	20µ V/m, best position
EIA Spurious and image Rejection:	50 dBc
EIA Intermodulation Rejection:	50 dB at 12.5 kHz
EIA Selectivity:	50 dB at 12.5 kHz

TRANSMITTER

Frequency Bands:	896-902 MHz
Channel Spacing:	12.5 kHz
Bit Rates:	800, 1600, 6400, 9600 bps
Signaling:	4-level FSK
Frequency Deviation:	+/- 800 Hz and +/- 2400 Hz
Emissions:	Meets FCC Narrowband PCS specs
Transmit EIRP:	0.1 W
Frequency Stability:	1 ppm

AUDIO

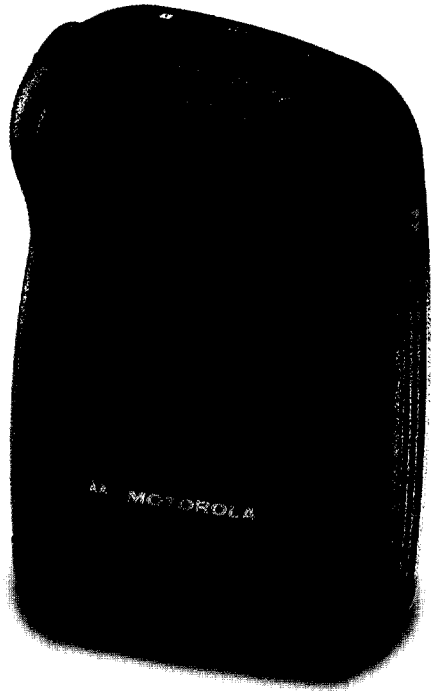
Audio Loudness:	72 dBA SPL at 12 inches at 3.2 kHz
Frequency Response:	400-2800 Hz ± 10 dB
Harmonic Distortion:	1% typical

MECHANICAL

Volume:	7.5 cubic inches (123 cc)
Dimensions:	3.6 x 2.5 x 1 .O inches (91 x 63 x 25 mm)
Weight with Battery:	5.5 oz (156 g)

ENVIRONMENTAL

Operating Temperature:	-10 to +50 degrees C
Operating Humidity:	90% R.H. @ 40 degrees C



INNOVATIONS

The Portable Answering Machine was selected as the 1996 Design & Engineering Award winner by the Consumer Electronics Manufacturing Association

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What you never thought possible.™

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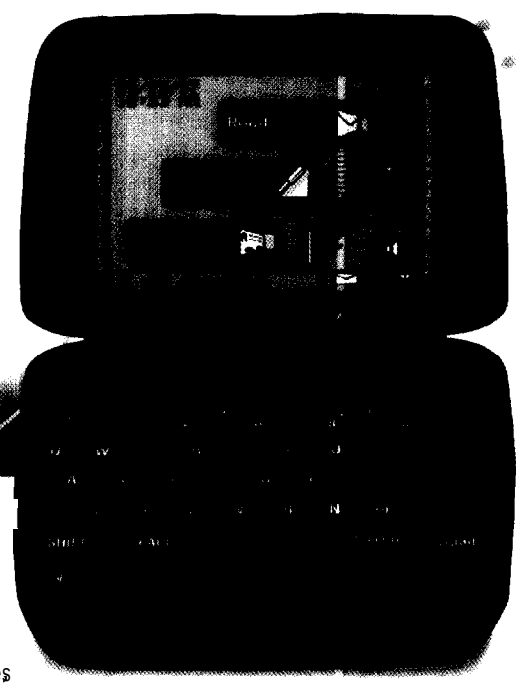
PageWriter™ 2000

TWO-WAY, WIRELESS COMMUNICATIONS IN A POWERFUL, PORTABLE PACKAGE.

The PageWriter™ 2000 two-way pager features a Full keyboard and graphic display that allows you to communicate wirelessly with other one- and two-way pagers, fax machines and Internet e-mail addresses, yet is small enough to comfortably wear on your belt or in your pocket.



FEATURES

- Create your own messages and reply with custom or preprogrammed replies
- Easy-to-use graphical user interface Instantly send and receive your messages using a familiar keyboard design preferred by user:
- High resolution graphics display with EL backlighting
- NavDisc™ cursor control with dual select keys - Perfect for right or left handed usage
- Message Manager For reading, writing and organizing your messages
- Address Book Store names, phone numbers, e-mail addresses and other information about frequently contacted people
- FLEX™ Operating System and Software - Easy to upgrade with new features and applications right from your PC or Mac, protecting your investment
- Customizable Features Variety of alerts, filters for automatic message handling, multiple folders for saving messages, selectable font sizes, and more!
- Confirmed Message Delivery - Allows the paging system to track and confirm delivery of your pages giving you and the sender assurance that your messages are received
- Operates on rechargeable NiMH battery giving you over one week of uninterrupted usage; fully recharges in one hour
- Holster, battery and charger included; optional docking station allows for easy connectivity to PCs and Macs

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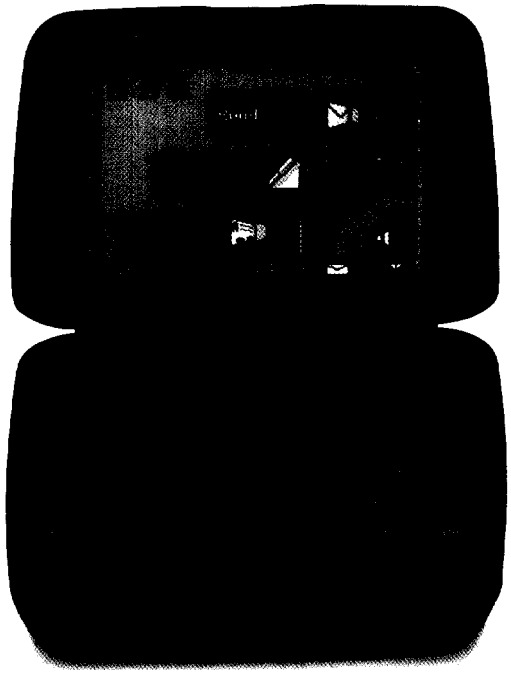
PAGEWRITER™ 2000 SPECIFICATIONS

GENERAL

Code Format	ReFLEX
Opel-ating System	FLEX' Operating System
Memory:	1 MB Flash + 256 KB RAM =125MI
Communications Port:	Infrared
Power Supply	NiMH rechargeable battery
Recharge Time:	1 hour (charger included)
Battery Life:	Over 1 week
Keyboard:	QWERTY layout with special function keys
Keys	Total of 47 keys plus the NavDisc™ and select keys

MECHAN

Dimensions:	3.75 x 2.85 x 1.2 inches (95 x 72 x 30 mm)
Volume:	9.3 cubic inches (153 cc)
Weight (with battery):	6.7 ounces (190 grams)
Graphics Display:	16 lines x 30 characters 240 x 160 pixels 4-level gray scale EL backlighting
Actual Message Area:	9 lines x 27 characters



[redacted]

Frequency Bands:	940 -941 MHz
Channel Spacing:	50 kHz
Bit Rate:	6400
Signaling:	d-level FSK
Frequency Deviation:	+/- 800 Hz and +/- 2400 Hz
Paging Sensitivity:	14 μV/M best position
Image Rejection:	40 dBc
Spurious Rejection:	50 dBc
Selectivity:	60 dBc
Temperature Spec.:	0 to +50 C operating -10 to +65 C storage
Spurious Emissions:	Meets Narrowband PCS FCC specs
1 MHz Blocking:	80 dB

[redacted]

Frequency Bands:	901-902 MHz
Transmit Power:	1 watt
Bit Rate:	9600
Channel Spacing:	12.5 kHz
Signaling:	4-level FSK
Frequency Deviation:	+/- 800 Hz and +/- 2400 Hz
Emissions:	Meets Narrowband PCS FCC specs
Frequency Stability:	1 PPM
Transmit EIRP:	10 db Wi
Power Into Antenna:	1 W

GOLD™ EDITION

Mobility AWARD 1996 winner

FLEX

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